

## Abstract of the Disclosure

A mesoporous silica has uniform mesopores and a periodic structure, which contains a Zr element in the form of a Si-O-Zr bond and wherein the Zr content in the Si-O-Zr bond, represented by  $[Zr/(Si + Zr)]$  is 0.05 to 20 mole %.  
5 The mesoporous silica is superior in alkali resistance and is suitably used particularly as a separation membrane (e.g. a ceramic membrane) and a catalytic support for solid-liquid system, in which an alkaline liquid may be used.